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P A P E R S
IN
M A N U F A C T U R E S.

No. I.

CLOTH FROM NEW SOUTH WALES WOOL.

The GOLD ISIS MEDAL, the premium offered, was this session presented to D. MACLEAN, Esq. of Basinghall-street, for CLOTH MANUFACTURED ENTIRELY FROM FINE WOOL THE GROWTH OF THE COLONY OF NEW SOUTH WALES. The following communication was received from Mr. Maclean on the subject, and a specimen of the cloth has been placed in the Society's repository.

SIR,

7, Basinghall-street, London,
February 24, 1824.

I SEND for the inspection of the Society of Arts, &c. a piece of blue cloth manufactured from wool the growth of New South Wales, by Messrs. Harris, Stephens and Co. of Stanley Mills in the county of Gloucester; and I here-

with beg to hand you certificates of the origin of the wool and value of the cloth.

I am, Sir,

A. Aikin, Esq.
Secretary, &c. &c.

&c. &c. &c.

D. MACLEAN.

CERTIFICATES.

London, February 23, 1824.

I HEREBY certify, that on the 27th day of June, 1823, I sold at public sale, at Garraway's coffee-house, eighty bales of wool, imported by John Macarthur, Esq. in the ship William Shand, Captain Kenn, from New South Wales; and that at such sale Messrs. Harris, Stephens and Co. of Stanley Mills, Gloucestershire, purchased three lots of said wools, and the same were forwarded from Messrs. Cooper and Spratt's warehouse, where they were warehoused from the ship, to Messrs. Tanner and Baylis's waggon-warehouse, Whitecross-street, on the 28th of June, 1823, to be conveyed to their manufactory at Stanley aforesaid.

THOMAS EBSWORTH,
Sworn Wool Broker.

London, February 24, 1824.

WE hereby certify, that, in our judgment, the piece of blue cloth, No. 65112. B B 2, manufactured by Messrs. Harris, Stephens and Co. of Stanley Mills in the county

of Gloucester, from wool of the growth of New South Wales, is worth, and will fetch in this market, forty-five shillings per yard.

HENRY HUGHES,
Blackwell-hall Factor, Basinghall-street.
THOMAS GREEN,
Blackwell-hall Factor, Coleman-street.

7, Basinghall-street, London, February 24, 1824.

I DECLARE upon my honour, that the piece of blue cloth No. 65112, B R 2, measuring thirty-eight yards, was manufactured by the house of Harris, Stephens and Co. (whereof I am partner), from wool imported from New South Wales, and bought by them at Marsh and Ebsworth's public sale, on the 27th June, 1823, as per annexed certificate; and that no other wool was mixed or used in the manufacture of said cloth.

D. MACLEAN,

SIR, Basinghall-street, March 2, 1824.

LEST any mistake should arise in consequence of my not stating to the Committee of Manufactures the price at which the blue cloth exhibited to them can be rendered to the public, as compared with cloth of Spanish or Saxon wool, I beg to state that thirty-one shillings per yard would be a remunerating price to the manufacturer; at which rate, I am of opinion, cloth of equal *softness*, from Saxon wool, cannot be afforded.

The committee is at liberty to retain a small portion of the cloth as a sample, if it is desired.

I am, Sir,

A. Aikin, Esq.
Secretary, &c. &c.

&c. &c. &c.

D. MACLEAN.

Brunswick-square, February 28, 1824.

IN manufacturing the wool of New South Wales the process usually employed in the manufacture of superfine cloth is pursued with but little variation. The process must be too familiar to a committee of Manufactures to require a minute description.

After a cloth is wove a great deal still remains to be done. The operation of fulling, which is the next stage from the loom, gives a consistency to cloth which distinguishes it from other wove fabrics: it produces a tendency in the fibres of the wool to cohere together, and form a compact and pliant substance, which enables it to resist the violent operation of the gig, to which it is submitted after the process of felting is completed.

This machine consists of a cylinder six feet by three, the surface of which is covered with teasels,* arranged in small frames. The cloth is stretched over this cylinder, which performs about one hundred and twenty revolutions in a minute. By this means the fibres of the wool on the face of the cloth are seized and pulled out by the teazel hooks, so as entirely to conceal the appearance of the thread.

* A vegetable substance resembling the head of the thistle, with its points terminating in hooks.

This part of the process of dressing is attended with considerable difficulty, from the necessity of having the teasels placed so accurately in their frames as to enable the hooks to pull out only the points of the fibres without robbing the cloth of any of its substance. After a sufficient quantity of work has been applied in this manner the cloth is put upon the shearing frame, and the nap or pile that has been produced by the operation of the teasel, shorn off by means of shears or knives that are made to pass over the surface of the cloth for that purpose ; and, finally, it is polished up at the brushing machine, which concludes the process.

In the manufacture of the cloth now exhibited the wool was found to work more freely in all its stages, with the exception of milling, or fulling, than any wools we have been in the habit of using. In this respect it does not *seem* to possess the tendency to union or coherence of fibres that the European wools possess.* The superior softness, however, of its nature, more than counterbalances this objection, and must render it always of great value for mixing with Spanish and German wools.

The cloth now under the consideration of the committee was manufactured from the wool of Mr. Macarthur's flocks, and is, I believe, the largest quantity, *of so fine a texture*, that has yet been produced from the wool of New South Wales. It is more than two months since it has been finished ; and a gentleman who had a coat of it states to me, that he has constantly worn it during that period, and that it looks now as well as it did the first day, although he has travelled some hundred miles in stage coaches.

* This may be said to be venturing an opinion, as it is impossible to speak decidedly on such slight experience.

Having a deep interest in the woollen manufactures of this kingdom, I anticipate with great satisfaction a period at which England may look to the remote but valuable colony of New South Wales for a considerable supply of this article, so closely connected with our comforts, affording many of the ornaments of social life, and contributing at once to the strength and the affluence of the country.

D. MACLEAN.

No. II.

HATS OR BONNETS OF BRITISH MANUFACTURE IN IMITATION OF LEGHORN.

THE two last and some preceding volumes of our Transactions exhibit the exertions which the Society has made in order to introduce the manufacture of hats, bonnets, &c. from whole straw, platted in the Italian manner. Hitherto these articles have been made in this country of wheat straw; but as this material is too coarse in its entire state for fine plat, a practice was introduced some years ago of splitting the straw into three or more lengths in order to obtain the requisite fineness. By so doing, however, the strength and flexibility of the straw were so far diminished as to render the fabrics composed of it wholly unequal to enter into competition with those imported from Leghorn, the consequence of which has been that the manufacture of split straw, which was carried on to a great extent and with good profit during the late war, suffered a ruinous